

AMENDMENTS TO THE CLAIMS

1-23. (Canceled)

24. (New) An implantable hearing aid actuator, comprising:

a first apparatus to couple with a middle ear component of a patient and including at least one surface discontinuity located and adapted for inducing patient tissue attachment between the middle ear component and the first apparatus;

a second apparatus operable to communicate axial vibrations to the first apparatus, wherein the first and second apparatus are selectively connectable and disconnectable by a user within a middle ear of a patient; and

a transducer having a body defining an aperture extending through a first side thereof, said second apparatus extending through said aperture, and a driver operable to drive the second apparatus in response to transducer drive signals and thereby stimulate the middle ear component when connected to the first apparatus, wherein the second apparatus is selectively advanceable by a user relative to the transducer body through the aperture so as selectively position said second apparatus independent from the operation of the driver.

25. (New) The actuator of Claim 24, wherein the aperture extends through a second side of the transducer body.

26. (New) The actuator of Claim 24, wherein the first and second apparatus are separate structures from the transducer and at least the second apparatus is insertable into the aperture of the transducer body.

27. (New) The actuator of Claim 25, comprising:

a coupler for connecting the second apparatus within the aperture of the transducer body.

28. (New) The actuator of Claim 27, wherein the coupler is selectively activatable to connect and disconnect the second apparatus within the aperture of the transducer body.

29. (New) The actuator of Claim 24, wherein the at least one surface discontinuity comprises:

at least one of a complex surface shape, surface pores, and surface asperities.

30. (New) The actuator of Claim 24, comprising:

a ball on one of the first and second apparatus; and

a receiver on the other one of the first and second apparatus sized and shaped to receive the ball.

31. (New) The actuator of Claim 30, wherein one of the first and second apparatus further comprises:

a pair of opposing tangs for application of pressure to open the receiver and uncouple the ball from the receiver.

32. (New) The actuator of Claim 24, wherein when the first and second apparatus are connected, the connected first and second apparatus are movable relative to each other to reduce load pressures therebetween.

33. (New) An implantable hearing aid actuator, comprising:

a transducer having a body defining an aperture extending through a first side thereof; an apparatus, to communicate axial vibrations to a middle ear component of a patient, wherein the apparatus includes at least one surface discontinuity integrally formed in the apparatus and located on the apparatus for inducing patient tissue attachment thereto, and wherein the apparatus extends through the aperture and is advanceable relative to the transducer body through the aperture to interface with the middle ear component; and

a driver operable to drive the apparatus in response to transducer drive signals, wherein the apparatus is selectively advanceable by a user relative to the transducer body through the aperture so as to selectively position the apparatus independent from operation of the driver.

34. (New) The actuator of Claim 33, wherein the aperture extends through a second side of the transducer body.

35. (New) The actuator of Claim 34, wherein the apparatus is a separate structure from the transducer and is insertable into the aperture of the transducer body.

36. (New) The actuator of Claim 34, comprising:

a coupler for connecting the apparatus within the aperture of the transducer body.

37. (New) The actuator of Claim 36, wherein the coupler is selectively activatable to connect and disconnect the apparatus within the aperture of the transducer body.

38. (New) The actuator of Claim 33, wherein the at least one surface discontinuity comprises:

at least one of a complex surface shape, surface pores, and surface asperities.

39. (New) The actuator of Claim 33, wherein the apparatus comprises:
a first apparatus to couple with the middle ear component of the patient; and
a second apparatus responsive to the transducer to communicate axial vibrations to the first apparatus, wherein the first and second apparatus are selectively connectable and disconnectable.

40. (New) An implantable hearing aid actuator, comprising:
a first apparatus to couple with a middle ear component of a patient and including at least one surface discontinuity located and adapted for inducing patient tissue attachment between the middle ear component and the first apparatus;

a second apparatus connectable to the first apparatus to communicate axial vibrations to the first apparatus, wherein the first and second apparatus are selectively connectable and disconnectable by a user within a middle ear of a patient; and

a transducer having a driver operable to drive the second apparatus in response to transducer drive signals and thereby stimulate the middle ear component when the second apparatus is connected to said first apparatus, wherein the second apparatus extends through the aperture, and wherein the second apparatus is selectively advanceable by a user relative to the transducer through the aperture so as to selectively position the second apparatus independent from the operation of the driver.

41. (New) The actuator of Claim 40, comprising:
a ball on one of the first and second apparatus; and
a receiver on the other one of the first and second apparatus sized and shaped to receive the ball.

42. (New) The actuator of Claim 41, wherein one of the first and second apparatus further comprises:

a pair of opposing tangs for application of pressure to open the receiver and uncouple the ball from the receiver.

43. (New) The actuator of Claim 40, wherein when the first and second apparatus are connected, the connected first and second apparatus are movable relative to each other to reduce load pressures therebetween.

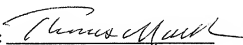
44. (New) The actuator of Claim 40, wherein the at least one surface discontinuity comprises:

at least one of a complex surface shape, surface pores, and surface asperities.

45. (New) The actuator of Claim 40, wherein the first and second apparatus are separate structures from the transducer and at least the second apparatus is insertable into an aperture defined in a body of the transducer.

Respectfully submitted,

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